
What is a Mammal?



Purpose:

- Students will discover the characteristics of a mammal and how mammals are similar and different from other organisms.

Objectives:

- Students will synthesize the characteristics of a mammal by comparing and contrasting two mammals in small groups.
- Students will name and give evidence for an organism that is a mammal and an organism that is not by using think-pair-share.

Materials:

- Task Cards (10)
- Venn Diagrams (10)
- Mammal Photos (11)
- White board markers (not provided)
- Key Characteristics of Mammals (provided in Background Information)

Time Required: 30-45 minutes

Appropriate Grade Level: 3-6

NGSS Standards:

4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

MS-LS4-2: Apply scientific ideas to construct an explanation for the anatomical similarities and difference among modern organisms and between modern and fossil organisms to infer evolutionary relationships.

Activity:

Introduction	In groups of 4 or 5 have students brainstorm organisms that they think are mammals. Once a list is generated for mammals, brainstorm a list of other organisms (reptiles, amphibians, invertebrates, ect.). With these lists generated on the board, pass out supplies to students explaining that through this activity students will be brainstorming the key characteristics of a mammal.
Body	Distribute lesson materials. Instruct students to take 10 minutes to fill out the Venn diagram to the best of their abilities. After ten minutes, list all the similarities on the board.



	<p>Work through each of these to see if students can narrow down the list based on the mammals they were comparing.</p> <p>The goal is to try and arrive at the key characteristics of a mammal but support may be needed in some areas.</p> <ul style="list-style-type: none"> • Warm blooded, Vertebrates, Hair, Mammary Glands, Birth to Live Young,
Closure	<p>Based on the characteristics of mammals that the class was able to come up with, have students think-pair-share one mammal that wasn't mentioned and one organism that is not a mammal and why.</p>

Modifications:

- Middle School and High School:
 - Students can choose their own mammals for the Venn diagram and justify with evidence that they are mammals.
 - Students can compare and contrast organisms in other groups (amphibians, reptiles, invertebrates) to mammals.
 - Students can research the evolution of mammals and their most recent common ancestor from other groups of organisms.

